



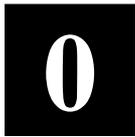
**Full D1 Day & Night IP camera  
CAM-5120**

**User's Manual**



[www.acti.com](http://www.acti.com)





# PRECAUTIONS

## 1. Read these instructions

All the safety and operating instructions should be read before the product is operated.

## 2. Heed all warnings

All warnings on the product and in the instruction manual should be adhered to.



The symbol indicates the following items, please carefully read the description next to each symbol.

- a. Failure to follow the safety instruction given may directly endanger people, cause damage to the system or to other equipment.
- b. The requirements to make this device work, including hardware, computer settings, network settings, and operation procedures.
- c. The tips to make using this device easier, more convenient and more efficient.

## 3. Servicing

Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

## Copyright

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## Trademarks

All names used in this manual for hardware and software are probably registered trademarks of respective companies.

## Liability

Every care has been taken during writing this manual. Please inform your local office if you find any inaccuracies or omissions. We cannot be held responsible for any

typographical or technical errors and reserve the right to make changes to the product and manuals without prior notice.

### **FCC/CE Regulation**

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: To assure continued compliance, (example – use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

CE: This device passed the test performed according to the European standard EN55022:1998 Class A, EN 61000-3-2:2000, EN61000-3-3”1995/A1:2001, EN55024:1998/A1:2001.

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# 1

## INTRODUCTION

### 1.1 PACKAGE CONTENTS

CAM-5120



Product CD



Warranty Card



Terminal Blocks for Power



Power Adaptor



## 1.2 FEATURES AND BENEFITS

The CAM-5120 Day and Night MPEG-4 IP camera adopts MPEG-4 Advanced Simple Profile (ASP) compliant compression technology to perform Full D1 (4 CIF) resolution. It utilizes the premium 1/3" SONY Exview CCD sensor, and has general resolution of 480 TV lines. With Smart Gain Control mechanism, it will switch to color and monochrome picture automatically without any external photosensitive resistance. The real-time image transmission is 30 fps (720 x 480 pixels, NTSC) and 25 fps (720 x 576 pixels, PAL)

- **Real-time MPEG-4 Compression**

With Hardware MPEG-4 compression chip inside, the composite video inputs can be efficiently compressed into MPEG-4 bit stream without any delay. The ASIC base compression engine can support not only CIF, but also FULL D1 image resolution.

- **QoS Enabled Video Streaming**

For real-time video streaming requirements, the CAM-5120 implemented the 802.1pQ features inside the SoC as the streaming engine to make sure the video streaming package is forwarded faster than normal TCP/UDP packet.

- **Automatic Frame Rate Control**

The CAM-5120 supports automatic/manual streaming frame rate control, especially for multiple clients concurrent access the same video stream in different network bandwidth.

- **Digital Time Code Embedded**

The "Digital Time Code Embedded" function is to embed the recording time in the MPEG bit stream. Therefore, each image frame has its respective time when it was recorded. It is very useful when users want to find the video at an exact time or between a certain time intervals.

- **Build-in LAN and WAN (Low Latency PPPoE Supported) Ports**

The CAM-5120 provides two RJ-45 connectors. One is WAN and the other is LAN. The WAN port connects to the internet and LAN port connects to the local network. Since the internet's bandwidth is very critical, the WAN port is equipped with a low latency PPPoE (Point-to-Point over Ethernet) which has excellent transmission speed and enables the CAM-5120 to connect to an ADSL or a cable modem.

- **DDNS Supported**

The CAM-5120 supports DDNS (Dynamic Domain Name Server), users can set the CAM-5120 at a virtual domain name (such as cam1.Taipei.xxx) at dynamic IP. Everyone can use the virtual domain name to view the video anywhere that has the access to the internet.

- **Build-in Hardware Motion Detection**

No more external motion sensors are required. Each CAM-5120 can be set up to 3 detection areas. By tuning the object size and sensitivity, it is very reliable to fit into your environment. Besides, hardware motion detection delivers better sensitivity and respond faster than software motion detection.

- **Bundle Powerful Surveillance Software**

To extend the capabilities of the CAM-5120, a powerful surveillance program is included in the package and is totally free to use. Users can easily utilize the existing PC to be a digital video recorder. Schedule recording and manual recording keep every important image recorded in the local hard disk. Reliable and accurate motion detection with instant warning makes you responsive in every condition. Quick and simple search and playback function lets you easily find the images you want.

- **Software Development Kit Support**

The CAM-5120 can be integrated or controlled by user's application program through the Streaming Library or ActiveX control. With its high level programming interface, software developer's time and efforts to is highly reduced.

- **Sophisticate design**

In addition to adopt the DC and video auto iris, the CAM-5120 also has adjustors including back light compensation, auto white balance, auto gain control and flickerless for different application conditions

- **Day/Night Switching**

The CAM-5120 offers Day/Night Switching function by Mechanical IR Cut Filter in Auto/Manual . Color mode automatically shifts to B/W mode under 4 Lux . The Minimum Illumination is 0.05Lux@F1.2 without IR light ; 0.Lux@F1.2 with IR light .

## 1.3 Safety instructions

- **Don't use the power supply with other voltages**

This device is likely to be damaged or damage other equipments / personnel, if you use a power supply with different voltage than the one included with this device. All warranty of this product will be voided in the situations above.

- **Don't open the housing of the product**

- **Cleaning**

Disconnect this video product from the power supply before cleaning.

- **Attachments**

Do not use attachments not recommended by the video product manufacturer as they may cause hazards.

- **Water and Moisture**

Do not use this video product near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool and the like.

- **Don't use accessories not recommended by the manufacturer**

- **Only install this device and the power supply in a dry place protected from weather**

- **Servicing**

Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

- **Damage Requiring service**

Disconnect this video product from the power supply immediately and refer servicing to qualified service personnel under the following conditions.

1. When the power-supply cord or plug is damaged.
2. If liquid has been spilled, or objects have fallen into the video product.
3. If the video product has been exposed to rain or water directly.
4. If the video product does not operate normally by following the

operating Instructions in this manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment . Other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.

- **Safety Check**

Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.

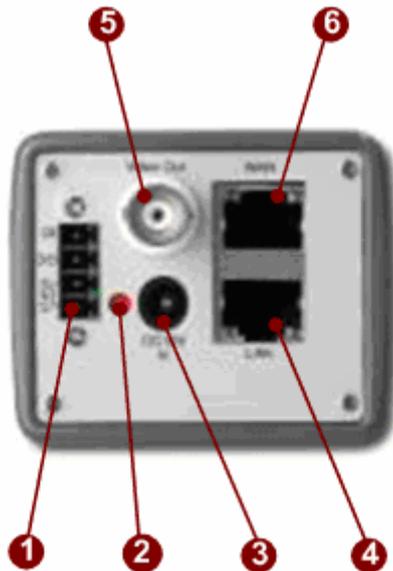
## 1.4 Minimum system requirements

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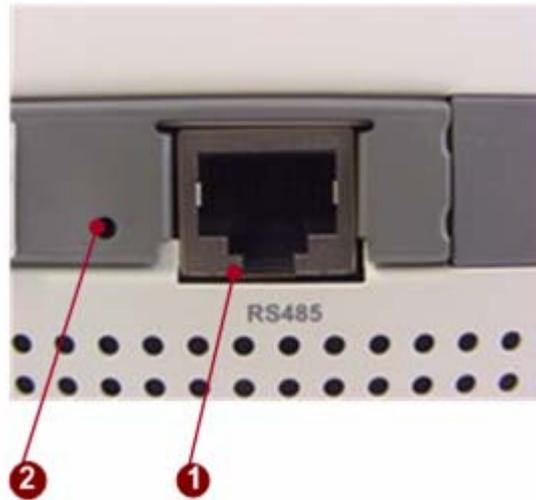
<b>CPU</b>	Pentium 4 2.4GHz and above
<b>Hard Disk</b>	40 GB or above
<b>Memory</b>	256 MB or above
<b>Operating System</b>	Windows XP / Windows 2000 with SP4 or above
<b>Required Utilities</b>	FFDShow, DirectX 9.0b or later hardware acceleration
<b>Video Resolution</b>	SVGA or XGA with 1024x768 resolution, 32-bit color

---

## 1.5 PARTS' NAMES and LOCATIONS



1. **DI/O**  
The CAM-5120 supports one alarm input and one alarm output.  
DI:Logic Level 0: 0~0.8V; Logic Level 1: 2.31~5.3V  
DO:Logic Level 0: 0~0.5V; Logic Level1: 2.8~3.3V
2. **Power LED Indicator**
3. **Power**  
12V 1.5A DC jack input.
4. **LAN port**  
The CAM-5120 connects to the LAN (local area network) via a standard RJ45 connector. Supporting NWAY, this CAM-5120 Day and Night Mpeg-4 IP camera can auto detect the speed of local network segment (10Base-T/100Base-TX Ethernet).
5. **Analog Video Output**  
The CAM-5120 supports one channel analog video output.
6. **WAN port**  
The CAM-5120 connects to the WAN (wide area network) via a standard RJ45 connector. Supporting NWAY, this CAM-5120 can auto detect the speed of local network segment (10Base-T/100Base-TX Ethernet). The WAN port is for FTTH and can connect to a xDSL or cable modem.



**1. RS485 port**

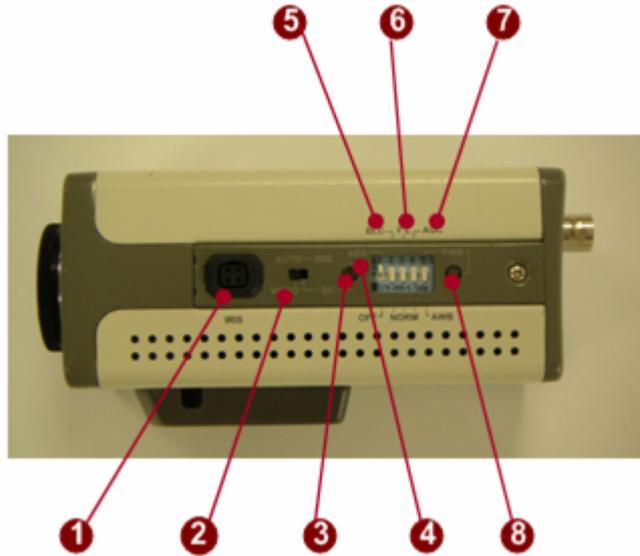
The CAM-5120 Day and Night Mpeg-4 IP camera can control or communicate with external devices via this RS485 port with RJ45 connector. Please refer to the Pin assignment reference 1.5.1. at Page 1-10.

**2 Reset button**

**Step 1:** Switch off CAM-5120 Day and Night Mpeg-4 IP camera by disconnecting the power cable

**Step 2:** Using a suitable pointed object, press and continue to hold the Reset Button depressed. While continuing to hold the reset button depressed, reconnect the power cable.

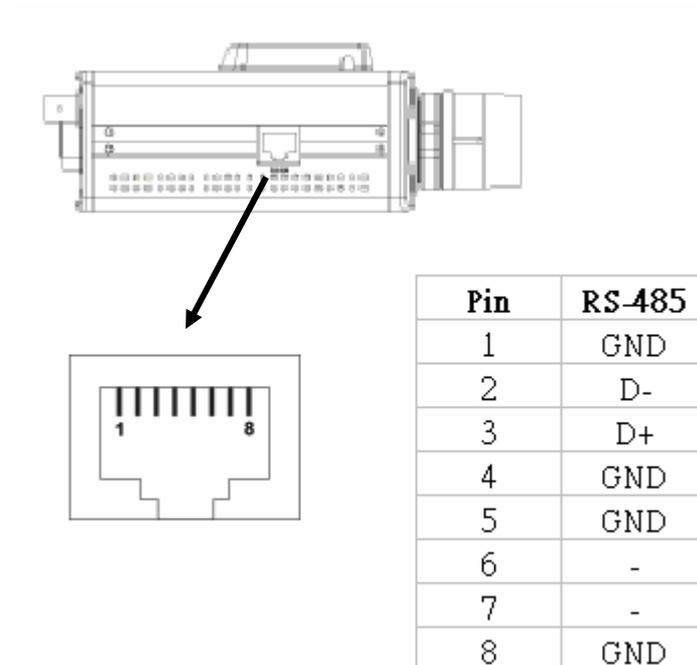
**Step 3:** Keep holding the reset button depressed around 6 seconds, release the reset button. The unit will start up with factory default settings.



1. **Auto IRIS Output**
2. **Auto IRIS Control**  
Video / DC (Switchable)
3. **Video DC Level Adjustment**
4. **Auto Electronic Shutter**  
AES OnL 1/50 (60) sec. ~ 1/100,000 sec;  
AES Off: 1/50 (60) sec.
5. **Back Light Compensation**  
On / Off (Switchable)
6. **Flickerless**  
On / Off (Switchable)
7. **Automatic Gain Control**  
On / Off (Switchable)
8. **Auto White Balance**  
AWB (ATW) / PWB (Switchable)

## 1.5.1 RS-485 Pin Assignment

### RJ-45 Connector Pin Assignment for RS-485



### RS-485 Cable Pin Assignment



P8.....P1

Pin	RS-485
1	GND
2	D-
3	D+
4	GND
5	GND
6	-
7	-
8	GND

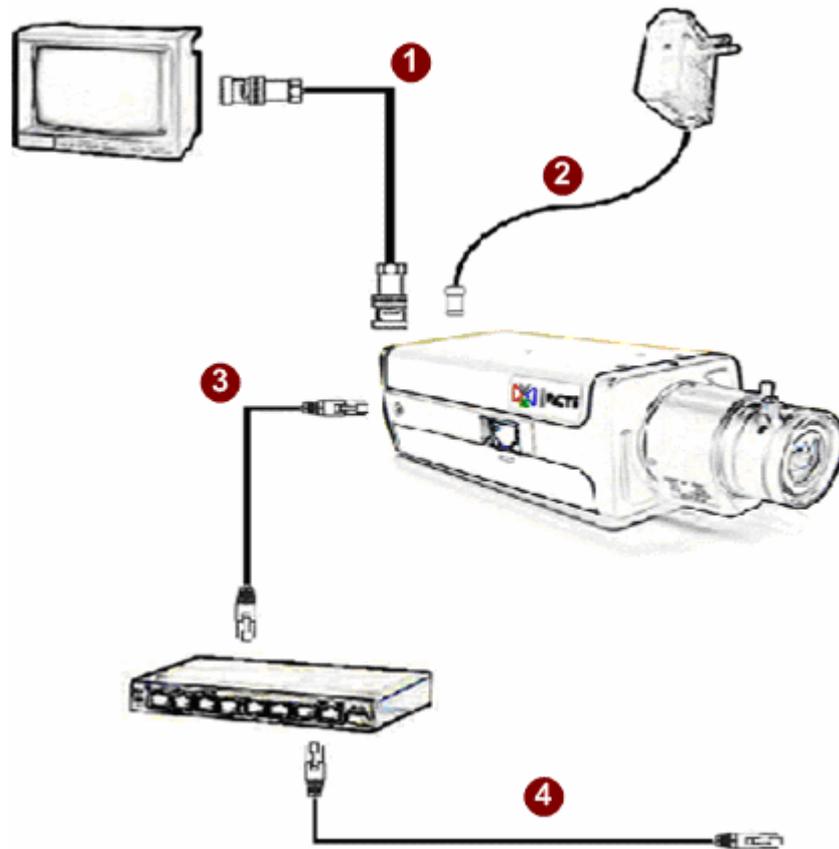


# 2

## INSTALLATION

### 2.1 Basic Connections

Follow the procedures below to connect the CAM-5120 Day and Night Mpeg-4 IP camera to the respective apparatuses. Please refer to page 1-6 for more details.



1. Connect an analog monitor to CAM-5120 Day and Night Mpeg-4 IP camera video out (BNC connector).
2. Connect the power adaptor to CAM-5120 Day and Night Mpeg-4 IP camera
3. Connect CAM-5120 Day and Night Mpeg-4 IP camera's LAN port to an Ethernet (RJ45 connectors)
4. Connect a PC to the Ethernet hub (RJ45 connectors)

## 2.2 Preparation before setup

To configure the CAM-5120 Day and Night Mpeg-4 IP camera, you have to use the Internet Explorer to login the CAM-5120 Day and Night Mpeg-4 IP camera. Before that, your PC's networks settings and the CAM-5120 Day and Night Mpeg-4 IP camera's IP address must be setup. Make sure all the connections are connected correctly, and then follow the procedures below to setup.

1. **Setup your PC network** (refer to page 2-2 for details)

You have to match your PC's TCP/IP setting with the CAM-5120 Day and Night Mpeg-4 IP camera's default settings before you can use IE browser to login it. This section tells you how to setup your PC's TCP/IP settings.

2. **Setup CAM-5120 Day and Night Mpeg-4 IP camera's IP address** (refer to page 2-8 for details)

This CAM-5120 Day and Night Mpeg-4 IP camera's IP address can be setup manually or automatically by network service (DHCP). If it acquires the IP address by using the DHCP service, please use the IP utility software bundled in the product CD to search all the CAM-5120 Day and Night Mpeg-4 IP cameras' IP address. This section tells you how to use the IP utility software.

### 2.2.1 Setup your PC network

To set up the network of CAM-5120 Day and Night Mpeg-4 IP camera via a PC, you have to change the TCP/IP settings of the PC.

The following are the default network settings of CAM-5120 Day and Night Mpeg-4 IP camera.

IP Address: 192.168.0.100

Subnet Mask: 255.255.255.0

To access the CAM-5120 Day and Night Mpeg-4 IP camera, the IP address of the PC should match the address below.

IP Address: 192.168.0.xxx

Subnet Mask: 255.255.255.0



**NOTE:** xxx should be a number from 1 to 254, but 100 is excepted.

The procedures below is the setup procedure of a PC using Windows XP as its OS. When running an OS other than Windows XP, please refer to the manual included with the OS.

- **STEP1**

Start up your PC.

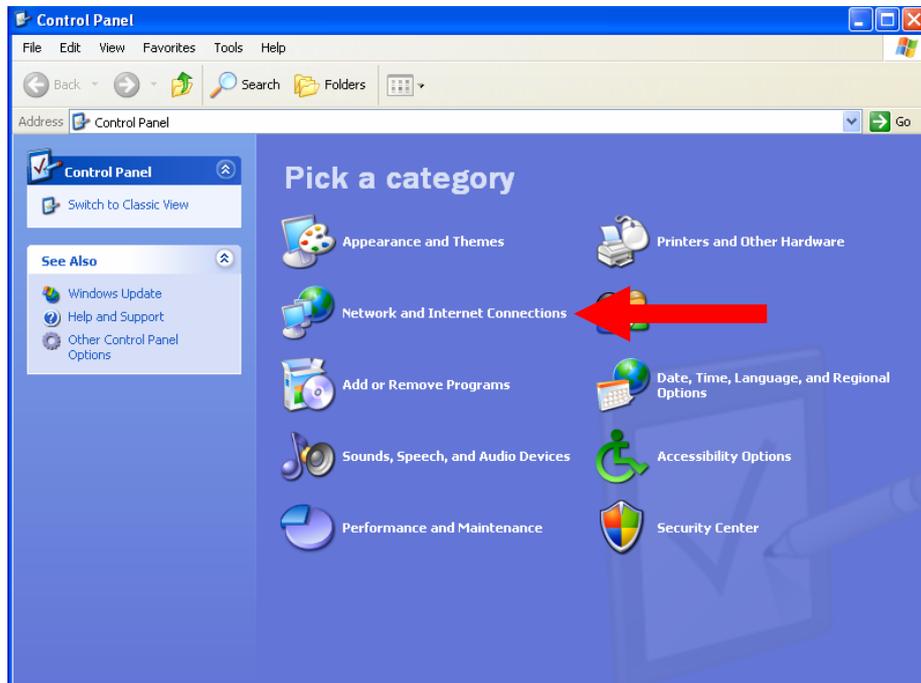
- **STEP2**

Click the [Start] and select the "Control Panel"



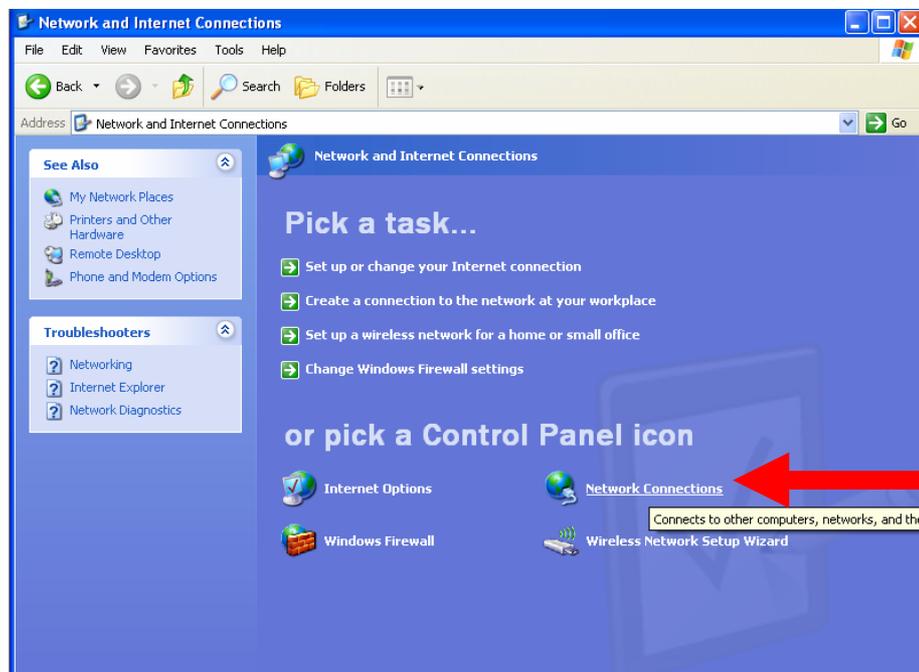
- **STEP3**

Double-click the "Network and Internet connections" icon.



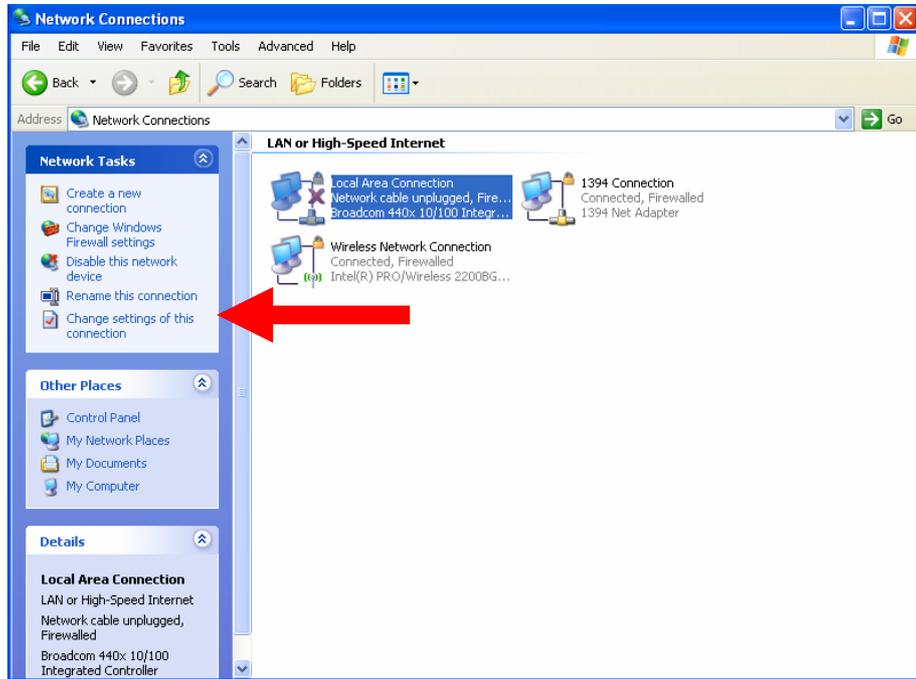
- **STEP4**

Double-click the "Network connections" icon



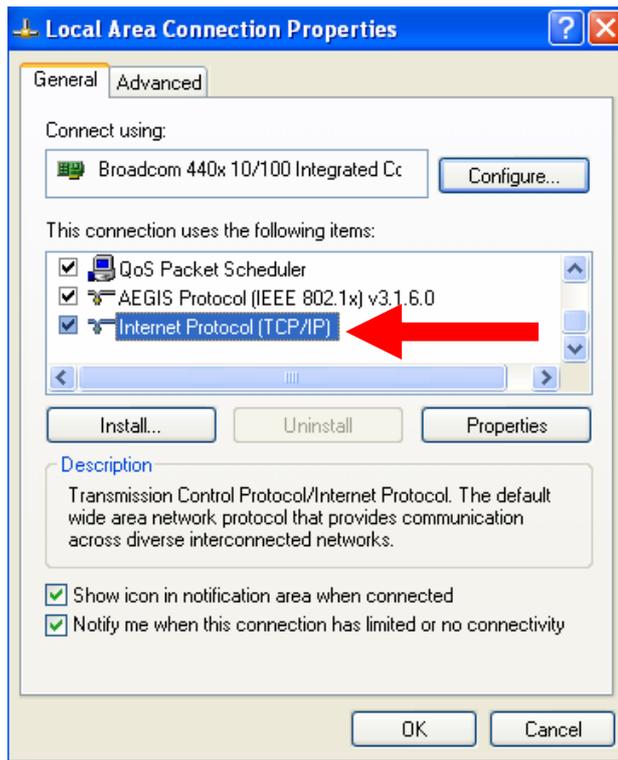
- **STEP5**

Click “Local Area Connections”, and then click “Change settings of this connection” in the network Task menu.



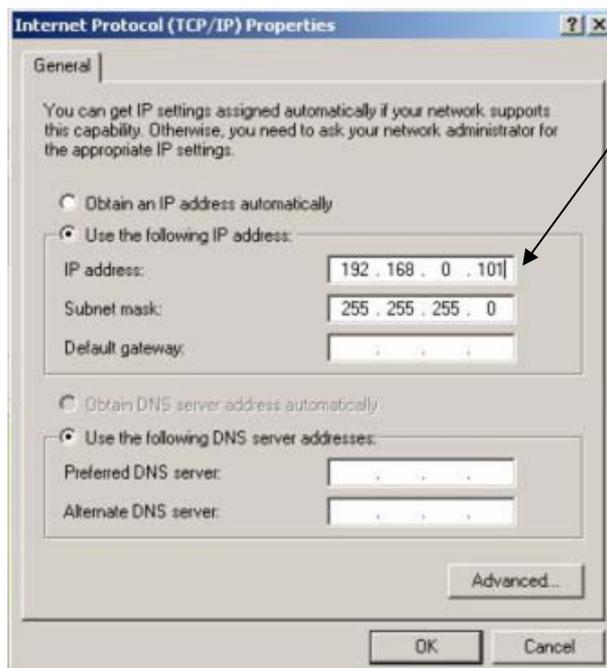
- **STEP6**

Click “Internet Protocol (TCP/IP)”, and then click the [Properties] button.



- **STEP7**

Click the “Use the following IP address” radio button and enter the IP address and the subnet mask.



Please set the settings as below.  
 IP address: 192.168.0.xxx  
 Subnet mask: 255.255.255.0  
 (NOTE: xxx should be a number from 1 to 254, but 100 is excepted.)

- **STEP8**

Click the [OK] button and the window dialog box closes.

## 2.2.2 Setup CAM-5120 Day and Night Mpeg-4 IP camera's IP address

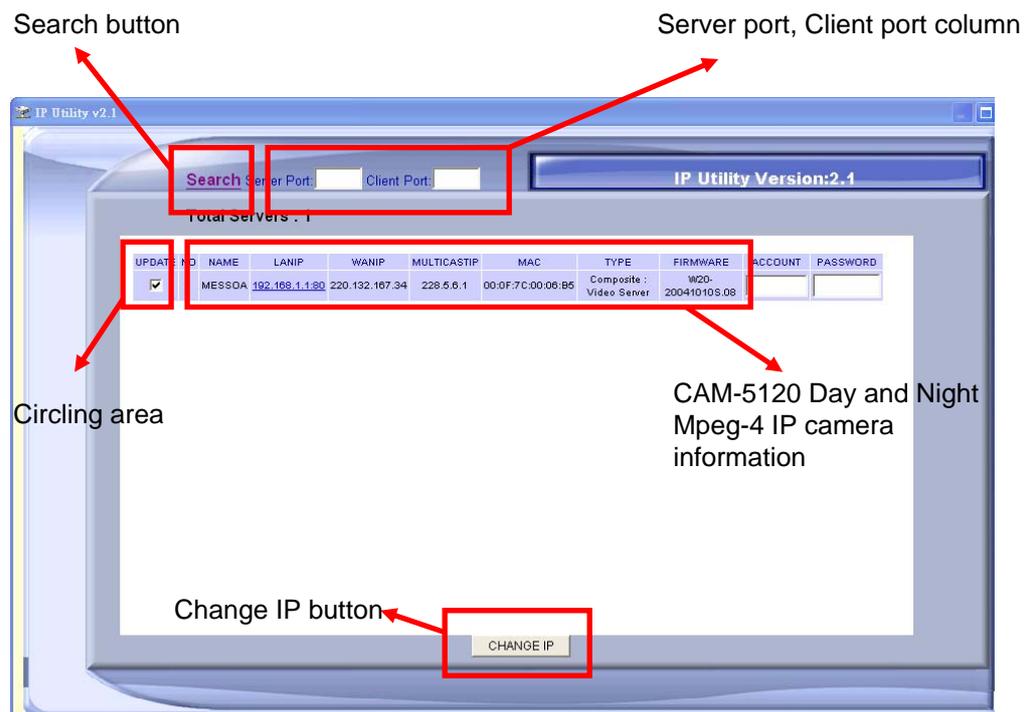
This CAM-5120 Day and Night Mpeg-4 IP camera's IP address can be setup manually or automatically by network service (DHCP). If it acquires the IP address by using the DHCP service, please follow the procedures below to use the IP utility software provided to search for CAM-5120 Day and Night Mpeg-4 IP camera's IP address.

- **Install the IP utility**

Insert the product CD provided within the package into your PC. The CD will start an auto-run program to guide you through the installation. Follow the instructions shown to install the IP-Video-Control-Center. After installation, the IP utility shortcut icon will be at the desktop.

- **Use the IP utility to search and change IP**

Double click the IP utility icon to start the program.



➤ **STEP1: Input the server port and client port number**

This IP utility will use these settings to search for the CAM-5120 Day and Night Mpeg-4 IP camera. These settings have to be the same with the CAM-5120 Day and Night Mpeg-4 IP camera

configuration for IP utility to successfully find the IP of the CAM-5120 Day and Night Mpeg-4 IP camera.

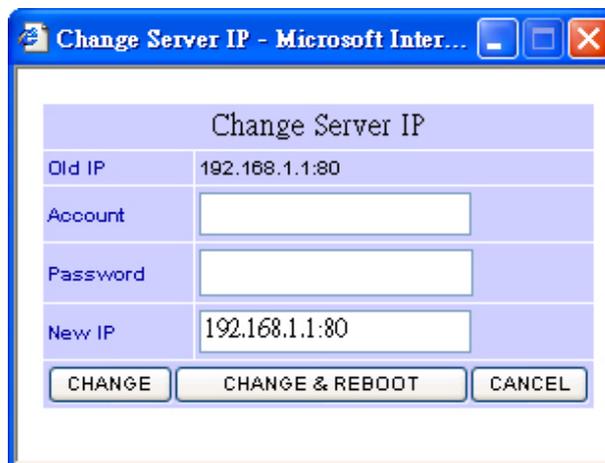
➤ **STEP2: Click the Search Button.**

This IP utility searches all the CAM-5120 Day and Night Mpeg-4 IP cameras within the same network area. All the information of the CAM-5120 Day and Night Mpeg-4 IP cameras' will be shown on the AP including name, LAN IP, WAN IP, Multicast IP, MAC address, server type and firmware.

➤ **STEP3: Circle the CAM-5120 Day and Night Mpeg-4 IP camera you want to change its IP address**

➤ **STEP4: Click the CHANGE IP button**

A window will pop-out as below.



➤ **STEP5: Enter new IP address to be assigned to this CAM-5120 Day and Night Mpeg-4 IP camera**

➤ **STEP6: Enter and the account and the password**

The default Account Name is “Admin” and the default password is “123456”.

➤ **STEP7: Click the CHANGE & REBOOT button**

The CAM-5120 Day and Night Mpeg-4 IP camera will reboot and start up with the new IP address.

## 2.3 Configuring the CAM-5120

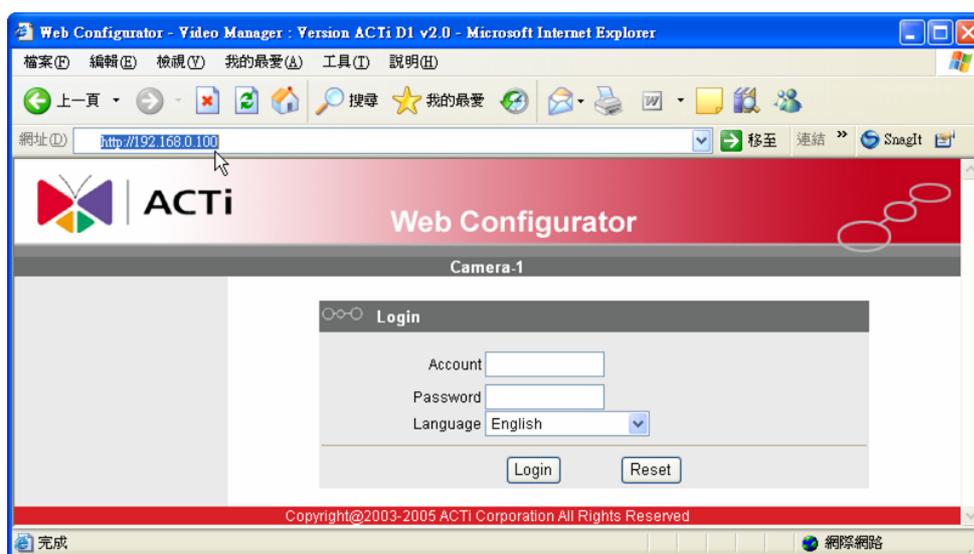
This section describes how to configure the CAM-5120 Day and Night Mpeg-4 IP camera. The product administrator has unlimited access to all setup windows and normal users can only watch the live images. The CAM-5120 Day and Night Mpeg-4 IP camera is configured under a standard browser (Microsoft Internet Explorer 6.0 or above).

Follow the procedures below to configure the CAM-5120 Day and Night Mpeg-4 IP camera.

- **STEP1:** Open a browser
- **STEP2:** Enter the domain name or the IP address of the CAM-5120 Day and Night Mpeg-4 IP camera.

The default IP address is “192.168.0.100” If you are not sure about the IP address of the CAM-5120 Day and Night Mpeg-4 IP camera.

**The “Login Page” is now displayed as below.**



- **STEP3:** Enter the Account name (factory default: Admin) and the Password (factory default: 123456).



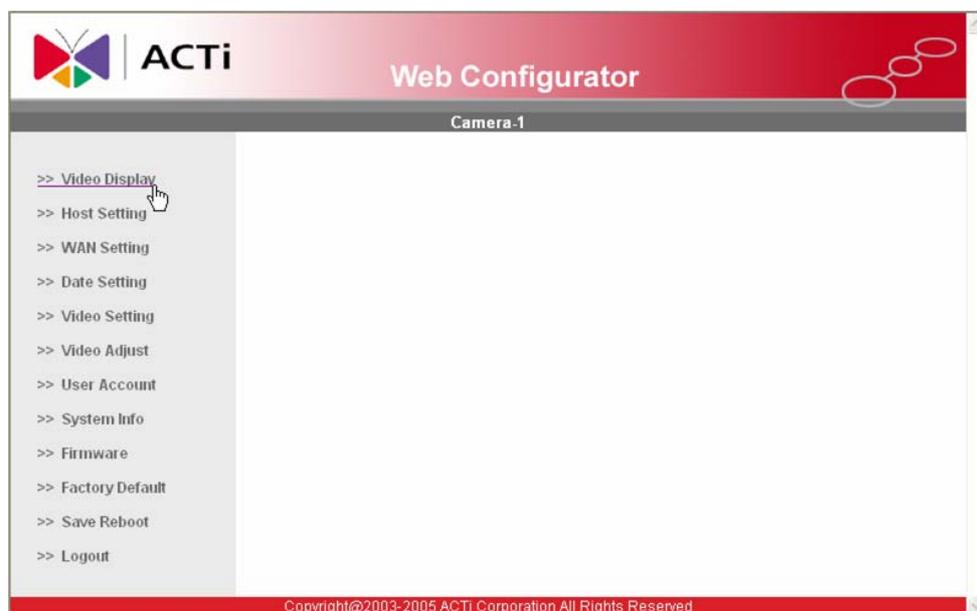
**NOTE:** Internet Explorer of 6.0 or above is highly recommended. If you don't have the it, please download it from <http://www.microsoft.com/windows/ie/downloads/default.msp>

- **STEP4:** Select the language of the CAM-5120 Day and Night Mpeg-4 IP camera user interface. You can select from English, Traditional Chinese, Simplified Chinese, Japanese and Spanish. This user interface setting will disappear once you log out, if you want to change the

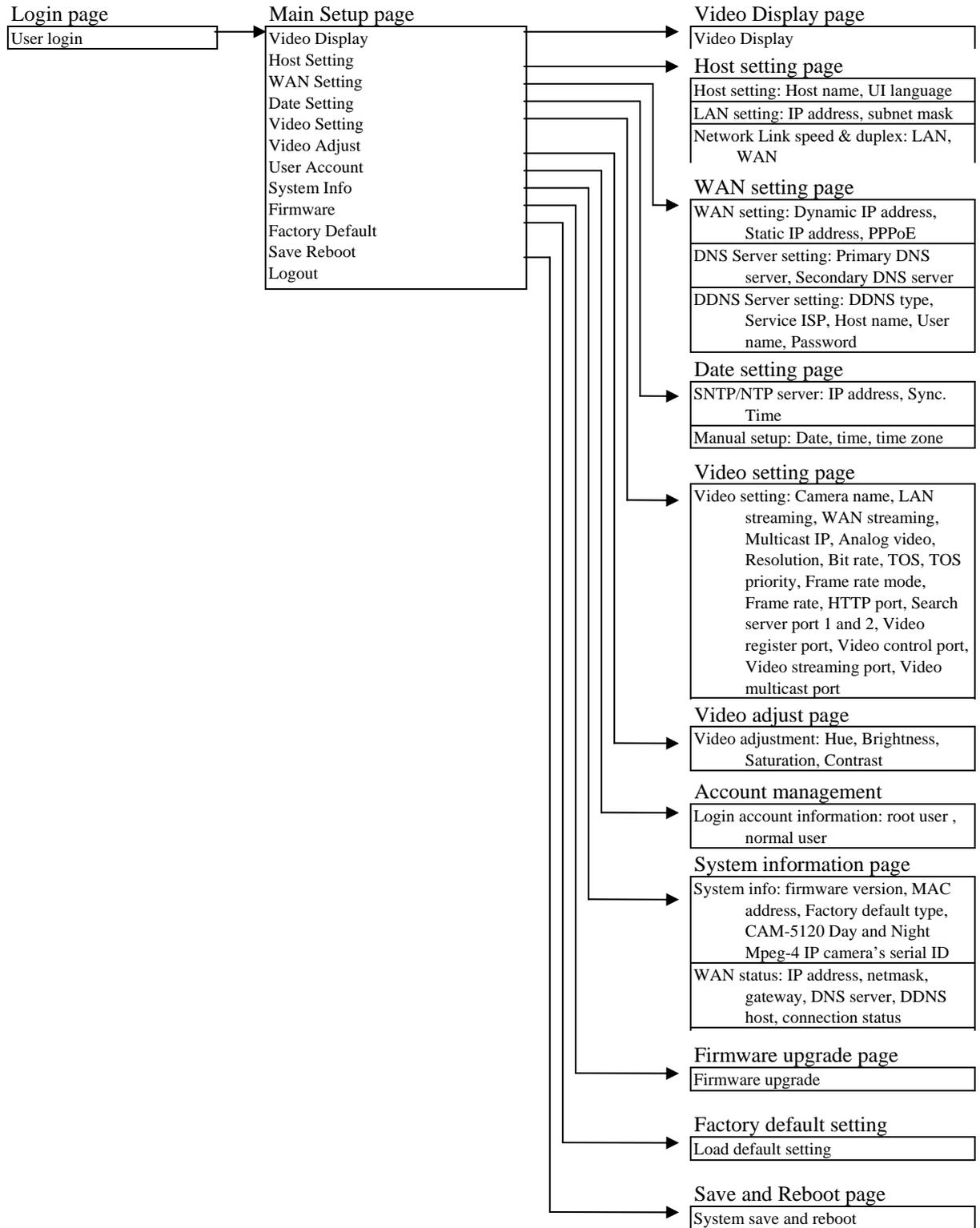
default user interface language.

- **STEP5:** Click the **Login** button to login or click the **Reset** button to re-enter again.

Once successfully login, the “Main Setup page” will be displayed as below.



## 2.3.1 Setup menus



## 2.3.2 Video Display

This section tells you how to view live images via Internet Explorer.

- **STEP1:** Click the [Video Display] on the “Main Setup page”.

The “Video Display page” is displayed as below.



- **STEP2:** Click the [Quit] to exit the live view and return to “Main Setup page”.



**NOTE:** If the streaming is disabled, you cannot see the live images here.



**NOTE:** Please install the utilities and the IP video control center software in the bundled CD. You will need them to view the MPEG-4 streaming.



**NOTE:** Be sure to set the Network Connections Type to Auto Negotiation to respective apparatus connected to this CAM-5120 Day and Night Mpeg-4 IP camera via network. Otherwise, the maximum transmission performance might not be achieved. This is because the CAM-5120 Day and Night Mpeg-4 IP camera follows MII standard.

### 2.3.3 Host Setting

This section tells you how to setup CAM-5120 Day and Night Mpeg-4 IP camera's host settings and LAN settings.

- **STEP1:** Click the [Host Setting] on the “Main Setup page”.

The “Host setting page” is displayed as below.

The screenshot shows the ACTi Web Configurator interface for Camera-1. On the left is a navigation menu with options like Video Display, Host Setting, WAN Setting, Date Setting, Video Setting, Video Adjust, User Account, System Info, Firmware, Factory Default, Save Reboot, and Logout. The main content area is divided into three sections: Host Setting, LAN Setting, and Network Link Speed & Duplex. Each section has input fields and buttons for Apply and Reset. Red numbered callouts (1-8) are placed over the interface to indicate specific settings: 1 points to the Host Name field, 2 to the Language dropdown, 3 to the Apply buttons in all three sections, 4 to the Reset buttons, 5 to the IP Address field, 6 to the Subnet Mask field, 7 to the LAN Port dropdown, and 8 to the WAN Port dropdown. A copyright notice is visible at the bottom: Copyright@2003-2005 ACTi Corporation All Rights Reserved.

- **STEP2:** Configure these settings with reference to the table below. If you are still unsure what to set, contact your system administrator.

#### ■ Host Setting

Parameters	Description
<b>1</b> Host name	Enter a host name, and this host name will be shown when you use the IP utility or the SDK to search for the CAM-5120 Day and Night Mpeg-4 IP camera.
<b>2</b> Language	Select the language of default user-interface. Each user login will see the default user-interface first.

#### ■ LAN Setting

Parameters	Description
<b>5</b> IP address	The address shown is the current LAN port IP address of this CAM-5120 Day and Night Mpeg-4 IP camera. You can change its IP address by change the parameter here.

6 Subnet mask	The The address shown is the current LAN port subnet mask of this CAM-5120 Day and Night Mpeg-4 IP camera. If the IP address is changed, adjust the subnet mask accordingly..
---------------	---

■ Network link speed & duplex

Parameters	Description
7 LAN port	This item lets you select the network transmission speed of LAN port. You can select from 1. <b>Auto detect</b> (default setting) 2. <b>100Mbps / Full duplex</b> 3. <b>100Mbps / Half duplex</b> 4. <b>10Mbps / Full duplex</b> 5. <b>10Mbps / Half duplex</b>
8 WAN port	This item lets you select the network transmission speed of WAN port. You can select from 1. <b>Auto detect</b> (default setting) 2. <b>100Mbps / Full duplex</b> 3. <b>100Mbps / Half duplex</b> 4. <b>10Mbps / Full duplex</b> 5. <b>10Mbps / Half duplex</b>

- **STEP3:** Click the 3 [Apply] button of each setting to confirm the settings or click the 4 [Reset] button to re-enter the parameters.



**NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.



**NOTE:** Check with your system administrator, if Client PC and CAM-5120 Day and Night Mpeg-4 IP camera are setting in different VLANs, please connect to WAN port.



**NOTE:** Be sure to set the Network Connections Type to Auto Negotiation to respective apparatus connected to this CAM-5120 Day and Night Mpeg-4 IP camera via network. Otherwise, the maximum transmission performance might not be achieved. This is because the CAM-5120 Day and Night Mpeg-4 IP camera follows MII standard.

## 2.3.4 WAN Setting

This section tells you how to setup CAM-5120 Day and Night Mpeg-4 IP camera's WAN, DNS server and DDNS server settings.

- **STEP1:** Click the [WAN Setting] on the “Main Setup page”.

The “WAN setting page” is displayed as below

ACTi Web Configurator  
Camera-1

>> Video Display  
>> Host Setting  
>> WAN Setting  
>> Date Setting  
>> Video Setting  
>> Video Adjust  
>> User Account  
>> System Info  
>> Firmware  
>> Factory Default  
>> Save Reboot  
>> Logout

**WAN Setting**

Dynamic IP Address **1**

Static IP Address **2**

IP Address 10 **3** . 0 **3** . 0 **3** . 1 **3**

Subnet Mask 255 **4** . 255 **4** . 255 **4** . 0 **4**

ISP Gateway 10 **5** . 0 **5** . 0 **5** . 254 **5**

PPPoE **6**

User Name **7**

Password **8**

Apply **16** Reset **17**

**DNS Server Setting**

Primary DNS Server **9**

Secondary DNS Server **10**

Apply **16** Reset **17**

**DDNS Server Setting**

DDNS Type Disable **11**

Service ISP members.dyndns.org **12**

Host Name **13**

User Name **14**

Password **15**

Apply **16** Reset **17**

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- **STEP2:** Configure these settings with reference to the table below. If you are still unsure what to set, contact your system administrator.

### ■ WAN Setting

Parameters	Description
1 Dynamic IP address	Click this to enable CAM-5120 Day and Night Mpeg-4 IP camera's DHCP function. It will acquire its WAN port IP address from a DHCP server within the same network. (You must have a DHCP server in order to enable this function.)
2 Static IP address	Click this to manually enter the CAM-5120 Day and Night Mpeg-4 IP camera WAN port IP address. <p>3 <b>IP address:</b> Enter the WAN port IP address.</p> <p>4 <b>Subnet mask:</b> Enter the subnet mask of WAN port. If IP address is changed, adjust the subnet mask accordingly.</p> <p>5 <b>ISP gateway:</b> Enter the IP address of the gateway (the router).</p>
6 PPPoE	Click this when you connect CAM-5120 Day and Night Mpeg-4 IP camera directly to the xDSL modem. <p>7 <b>User name:</b> Enter the user name of your xDSL account.</p> <p>8 <b>Password:</b> Enter the password of your xDSL account.</p> <p><b>Note:</b> You have to click the [Save Reboot] after you click the [Apply button] to let this CAM-5120 Day and Night Mpeg-4 IP camera start xDSL connections.</p>

### ■ DNS server Setting

Parameters	Description
9 Primary DNS server	Defines the IP address of the primary DNS server. This is used for identifying this computer by name instead of IP address.
10 Secondary DNS server	The IP address of the secondary DNS server. It will be used once the primary DNS server fails.

### ■ DDNS server Setting

Parameters	Description
11 DDNS type	Click this to enable CAM-5120 Day and Night Mpeg-4 IP camera's DDNS function. DDNS function enables user to connect to this CAM-5120 Day and Night Mpeg-4 IP camera by domain name even if its IP address is not static.
12 Service ISP	Click one of the DDNS service providers. You can visit their website to get a DDNS service account for this CAM-5120 Day and Night Mpeg-4 IP camera.
13 Host name	Enter the host name of your DDNS service account. (ex: xxxx.dyndns.org)

<b>14</b> User name	Enter the user name to login your DDNS service account.
<b>15</b> Password	Enter the password to login your DDNS service account.

- **STEP3:** Click the **16** [Apply] button of each setting to confirm the settings or click the **17** [Reset] button to re-enter the parameters.



**NOTE:** Check with your system administrator, if Client PC and CAM-5120 Day and Night Mpeg-4 IP camera are setting in different VLANs, please connect to WAN port.



**NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.



**NOTE:** Be sure to set the Network Connections Type to Auto Negotiation to respective apparatus connected to this CAM-5120 Day and Night Mpeg-4 IP camera via network. Otherwise, the maximum transmission performance might not be achieved. This is because the CAM-5120 Day and Night Mpeg-4 IP camera follows MII standard.

## 2.3.5 Date Setting

This section tells you how to setup CAM-5120 Day and Night Mpeg-4 IP camera's date and time settings.

- **STEP1:** Click the [Date Setting] on the “Main Setup page”.

The “Date setting page” is displayed as below

- **STEP2:** Configure these settings with reference to the table below. If you are still unsure what to set, contact your system administrator.

### ■ Date Setting

Parameters	Description
<b>1</b> SNTP/NTP server	Click this to enable CAM-5120 Day and Night Mpeg-4 IP camera's SNTP/NTP function. SNTP/NTP function enables this video to synchronize its time settings with a SNTP/NTP server. You can use this function to make sure all your CAM-5120 Day and Night Mpeg-4 IP cameras' time is the same. Additionally, with our embedded digital-time-code in the streaming, you can tell the event sequence accurately. <b>2</b> <b>IP address:</b> Enter the IP address of the SNTP/NTP server. <b>3</b> <b>Sync time:</b> Select the time interval for this CAM-5120 Day and Night Mpeg-4 IP camera to synchronize its time.
<b>4</b> Set manually	Click this to manually setup the date & time. <b>5</b> <b>Date :</b> Select the date

	<b>6</b> Time: Select the time
<b>7</b> Time zone	Select the time zone offset for local settings

- **STEP3:** Click the **8** [Apply] button of each setting to confirm the settings or click the **9** [Reset] button to re-enter the parameters.



**NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.

Manually set date and time will be gone, if power off.

## 2.3.6 Video Setting

This section tells you how to setup CAM-5120 Day and Night Mpeg-4 IP camera's video and streaming settings.

- **STEP1:** Click the [Video Setting] on the “Main Setup page”.

The “Video setting page” is displayed as below

The screenshot shows the 'Video Setting' page in the ACTi Web Configurator. The page title is 'Camera-1'. On the left, there is a navigation menu with options like '>> Video Display', '>> Host Setting', '>> WAN Setting', '>> Date Setting', '>> Video Setting', '>> Video Adjust', '>> User Account', '>> System Info', '>> Firmware', '>> Factory Default', '>> Save Reboot', and '>> Logout'. The main content area is titled 'Video Setting' and contains the following fields with red numbered callouts:

- 1: Camera Name (text input: Camera-1)
- 2: LAN Streaming (dropdown: Multicast)
- 3: WAN Streaming (dropdown: TCP)
- 4: Multicast IP (text input: 228.5.6.1)
- 5: Analog Video (dropdown: NTSC)
- 6: Resolution (dropdown: N720x480)
- 7: Bitrate (dropdown: 3Mbps)
- 8: ToS (Type of Service) (dropdown: Disabled)
- 9: ToS Priority (dropdown: Normal-Service)
- 10: Frame Rate Mode (dropdown: Constant)
- 11: Frame Rate (dropdown: 30)
- 12: Serial Port Baud Rate (dropdown: 9600)
- 13: HTTP Port (text input: 80)
- 14: Search Server Port 1 (text input: 6005)
- 15: Search Server Port 2 (text input: 6006)
- 16: Video Register Port (text input: 6000)
- 17: Video Control Port (text input: 6001)
- 18: Video Streaming Port (text input: 6002)
- 19: Video Multicast Port (text input: 5000)
- 20: Apply button
- 21: Reset button

At the bottom of the page, there is a copyright notice: 'Copyright@2003-2005 ACTi Corporation All Rights Reserved'.

- **STEP2:** Configure these settings with reference to the table below. If you are still unsure what to set, contact your system administrator.

### ■ Video setting

Parameters	Description
1 Camera name	The camera name is reserved for customer use.
2 LAN streaming	Select the streaming mode in the LAN. You can select TCP (TCP/IP) mode or Multicast mode to send video streaming. You can also select Disable to disable the streaming via LAN.

3 WAN streaming	Select the streaming mode in the WAN. You can select TCP mode to send streaming or select Disable to disable the video streaming.
4 Multicast IP	Select the multicast IP. Default settings is 228.5.6.1
5 Analog video	Select video type connected to the video-in of this CAM-5120 Day and Night Mpeg-4 IP camera. If you use an incorrect video type, some images might be lost.
6 Resolution	Select the video resolution of the CAM-5120 Day and Night Mpeg-4 IP camera.
7 Bit rate	Select the bit rate of the video streaming. You can select from 28Kbps to 3Mbps. <b>Note:</b> Lower bit rate consumes less bandwidth but delivers lower quality images. High bit rate consumes more bandwidth but delivers higher quality images.
8 TOS (type of service)	Select whether to add the TOS tag onto the streaming data. Streaming data with a higher priority TOS tag will be transmitted first while compared with other data to be transmitted.
9 TOS priority	Select the TOS tag's priority to be added onto the streaming. You can select between 1. <b>Normal-Service</b> 2. <b>Minimize-Cost</b> 3. <b>Maximize-Reliability</b> 4. <b>Maximize-throughout</b> 5. <b>Minimize-Delay</b>
10 Frame rate mode	Select the frame rate mode. <b>Constant:</b> The streaming's frame rate remains constant at all conditions. <b>Variants:</b> The streaming's frame rate will vary according to the images variability to keep the image quality good.
11 Frame rate	Select the frame rate of the video streaming.
12 Serial Port Baud Rate	Select the Baud Rate setting of serial port.
13 HTTP port	Select the port for this CAM-5120 Day and Night Mpeg-4 IP camera to use HTTP protocol.
14 Search server port1	Select the port1 for this CAM-5120 Day and Night Mpeg-4 IP camera to support search function of the application program (ex: IP utility).
15 Search server port2	Select the port2 for this CAM-5120 Day and Night Mpeg-4 IP camera to support search function of the application program (ex: IP utility).
16 Video register port	Select the port for this CAM-5120 Day and Night Mpeg-4 IP camera to support video registration function of the application program.
17 Video control port	Select the port for this CAM-5120 Day and Night Mpeg-4 IP camera to support video control function of the application program.
18 Video streaming port	Select the port for this CAM-5120 Day and Night Mpeg-4 IP camera to support video streaming function of the application program.
19 Video multicast	Select the port for this CAM-5120 Day and Night Mpeg-4

port	IP camera to support video multicast function of the application program.
------	---

- **STEP3:** Click the  [Apply] button of each setting to confirm the settings or click the  [Reset] button to re-enter the parameters.



**NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.



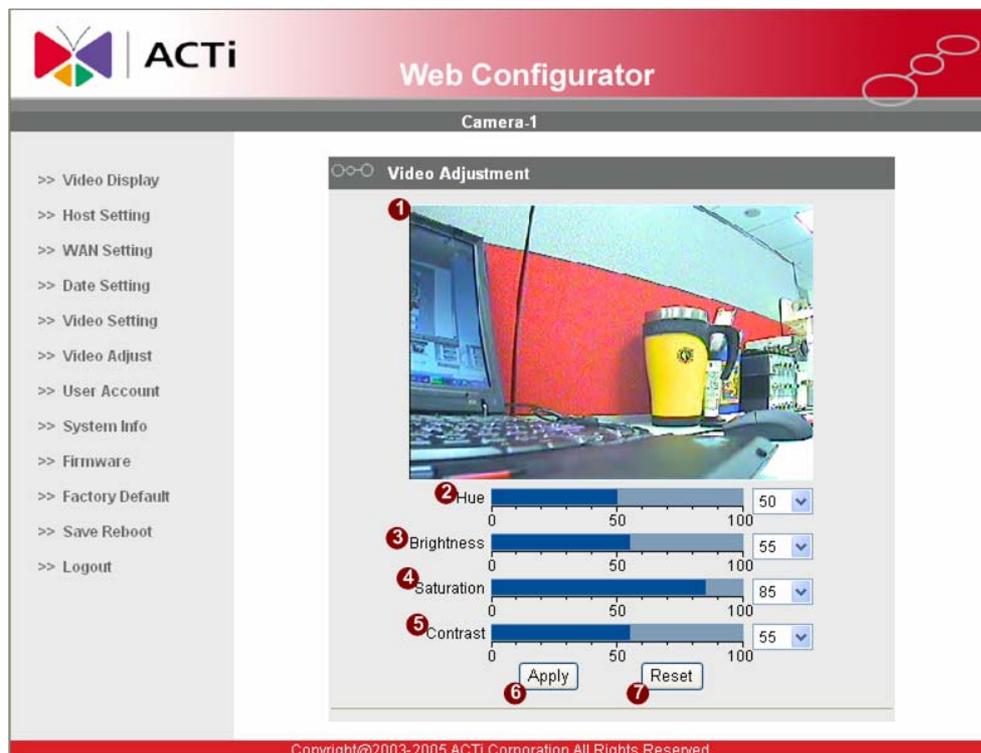
**NOTE:** If you change **Search Server Port1 & Search Server Port2**, then you need to change ports in IP Utility when searching for this CAM-5120 Day and Night Mpeg-4 IP camera. Otherwise, you might not find CAM-5120 Day and Night Mpeg-4 IP camera/CAM-5120 Day and Night Mpeg-4 IP camera in the network

## 2.3.7 Video Adjustment

This section tells you how to adjust the streaming video.

- **STEP1:** Click the [Video Adjust] on the “Main Setup page”.

The “Video adjust page” is displayed as below



- **STEP2:** Adjust the video by changing the value of **2** “Hue”, **3** “Brightness”, **4** “Saturation” and **5** “Contrast”. See the images displayed above for the effect of the current setting.
- **STEP3:** When satisfied with the video settings, click the **6** [Apply] button of each setting to confirm the settings or click the **7** [Reset] button to re-enter the parameters.



**NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.

## 2.3.8 User Account Management

This section tells you how to setup the accounts.

- **STEP1:** Click the [User account] on the “Main Setup page”.

The “Account management page” is displayed as below

The screenshot shows the ACTi Web Configurator interface for 'Camera-1'. The main content area is titled 'User Account Setting' and contains a table with the following structure:

User	Account	Password
1 Root	Admin	123456
USER1		
USER2		
USER3		
USER4		
USER5		
USER6		
USER7		
USER8		
USER9		
USER10		

At the bottom of the table, there are two buttons: 'Apply' (labeled 3) and 'Reset' (labeled 4). A red bracket on the left side of the table is labeled 2.

- **STEP2:** Setup the account names and their respective passwords.  
There are 1 root (administrator) account and 10 common user accounts. Administrator account allows the user to watch the live view and setup everything; but common user account allows user only to watch the live view.
- **STEP3:** Click the 3 [Apply] button of each setting to confirm the settings or click the 4 [Reset] button to re-enter the parameters.



**NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.

## 2.3.9 System Info

This section tells you how to see the system information of this CAM-5120 Day and Night Mpeg-4 IP camera including firmware version, MAC address, WAN status and system log.

- **STEP1:** Click the [System info] on the “Main Setup page”.

The “System information page” is displayed as below

The screenshot shows the ACTi Web Configurator interface for Camera-1. The left sidebar contains navigation options: Video Display, Host Setting, WAN Setting, Date Setting, Video Setting, Video Adjust, User Account, System Info, Firmware, Factory Default, Save Reboot, and Logout. The main content area is titled 'System Information' and is divided into three sections:

- System Information:**
  - Firmware Version = A1D-V1.00.03-AC
  - MAC Address = 00:0F:7C:00:00:67
  - Factory Default Type = Video Server, NTSC, Composite (0x11)
  - Serial ID =
  - Model Number =
- WAN Status:**
  - IP Address : 10.0.0.1
  - Netmask : 255.255.255.0
  - Gateway :
  - DNS Server :
  - DDNS Host :
  - WAN Connect Status : Disconnect
  - DNS Connect Status : Disconnect
  - DDNS Connect Status : Disconnect
- System Log:**
  - MSG\_LOG: WAN auto detect speed
  - MSG\_LOG: LAN auto detect speed
  - Starting Modules Manager
  - Starting tick timer
  - Starting Default button check
  - Load OEM Config File
  - Read OEM Config File
  - Load Config File
  - Read Config File
  - Starting Lan Manager

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- **STEP2:** View the information at the 3 columns. This information is very useful to understand the CAM-5120 Day and Night Mpeg-4 IP camera status and to resolve any problem that might occur.

### ■ System info

Column	Description
① System info	It shows the firmware version, MAC address, Factory default type and CAM-5120 Day and Night Mpeg-4 IP camera's serial ID.
② WAN status	It shows the WAN port's IP address, netmask, gateway, DNS server, DDNS host and connection status.
③ System log	It shows the system event. This column is very useful to as a diagnostic tool.

## 2.3.10 Firmware Upgrade

This section tells you how to see update CAM-5120 Day and Night Mpeg-4 IP camera's firmware. You can always visit our web site for the latest firmware.

- **STEP1:** Click the [Firmware] on the “Main Setup page”.

The “Firmware upgrade page-1” is displayed as below



- **STEP2:** Click **1** [Apply] button. The “firmware upgrade page-2” will be displayed as below.



### ■ Date Setting

Parameters	Description
<b>3</b> Firmware images file	You can upload the firmware images here. Click the [browse] to select the an image file and click the [enter]. You can always get the latest version. at our website.
<b>4</b> MD5 file	You can upload the MD5 file here.

	Click the [browse] to select an MD5 file and click the [enter]. You can always get the latest version at our website.
--	--



**NOTE:** The version of the firmware image and the MD5 file to be uploaded must be the same, otherwise, the firmware upgrading will fail and the CAM-5120 Day and Night Mpeg-4 IP camera will continue using previous firmware version.

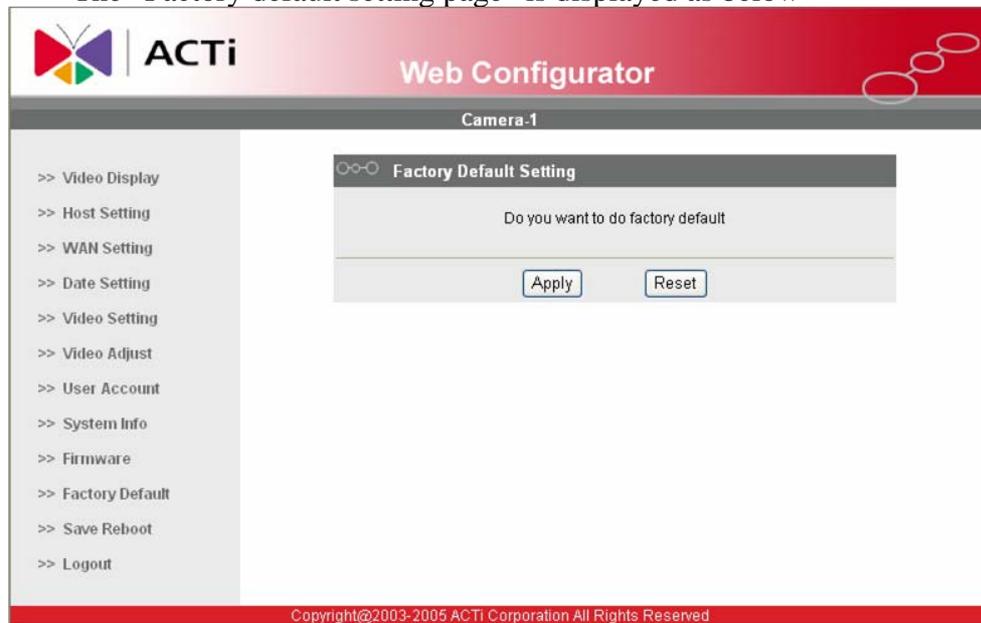
- S  
**TEP3:** Click the **5** [Upload] button to start upgrading or click the [Reset] to re-select the files.
- **STEP4:** The Action LED indicator (green) will start flashing to indicate the upgrading is in process. It will take around 4 minutes for the upgrading.
- **STEP5:** The Action LED indicator (green) will light down to indicate that the CAM-5120 Day and Night Mpeg-4 IP camera is rebooting. After around 30 seconds, the Action LED will light up again to indicate the upgrading is completed.

### 2.3.11 Factory Default

This section tells you how to see load CAM-5120 Day and Night Mpeg-4 IP camera's factory default setting.

- **STEP1:** Click the [Factory Default] on the “Main Setup page”.

The “Factory default setting page” is displayed as below



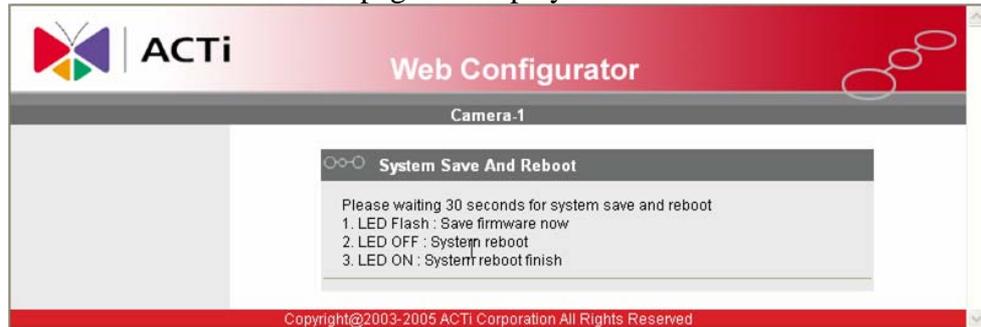
- **STEP2:** Click the **1** [Apply] button to go to loading confirmation page or click the **2** [Reset] button to exit to previous page.
- **STEP3:** A loading confirmation page will be displayed. Click the [OK] button to start loading factory default or click the [Cancel] button to exit to previous page.
- **STEP3:** The Action LED indicator (green) will light down to indicate that the CAM-5120 Day and Night Mpeg-4 IP camera is rebooting. After around 30 seconds, the Action LED will light up again to indicate that the factory default loading is completed.

### 2.3.12 Save Reboot

This section tells you how to save all the settings and reboot this CAM-5120 Day and Night Mpeg-4 IP camera. This is critical because some settings might not take effect before save and reboot.

- **STEP1:** Click the [Save and reboot] on the “Main Setup page”.

The “Save and reboot page” is displayed as below.



- **STEP2:** The Action LED indicator (green) will light down to indicate that the CAM-5120 Day and Night Mpeg-4 IP camera is rebooting. After around 30 seconds, the Action LED will light up again to indicate that the reboot is completed.

### 2.3.13 Logout

This section tells you how to logout the CAM-5120 Day and Night Mpeg-4 IP camera. Be sure to logout this CAM-5120 Day and Night Mpeg-4 IP camera once your setting is completed.

- **STEP1:** Click the [Logout] on the “Main Setup page”.

You will logout and return to the “Login Page” displayed as below.

